

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
David Thomas et al.

Application No.: 09/773,866

Confirmation No.: 3286

U.S. Patent No. 7,172,759

Art Unit: 1644

Filed: February 1, 2001

For: CD40-BINDING APC-ACTIVATING
MOLECULES

Examiner: P. Gambel

SUBMISSION UNDER 37 CFR §1.501

Mail Stop Post Issue
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INTRODUCTORY COMMENTS

On behalf of the patentee, PANGENETICS B.V., please enter the following citation into the prosecution history file of the above-identified patent ("the '759 patent"). An original copy (i.e., Chinese language) of the cited reference is enclosed. An English language translation of this non-patent citation is enclosed.

1. Zhou et al., (1999) Chinese Journal of Immunology, volume 15, pp. 529-533 ("the Zhou reference").

Remarks begin on page 2 of this paper.

REMARKS

Below is an explanation of certain differences between the '759 patent claims and the cited reference. It is emphasized that the discussion of differences is not meant to be extensive.

1. Zhou et al., (1999) Chinese Journal of Immunology, 15, 529-533

This reference is enclosed because it was cited during prosecution of the Chinese counterpart of the '759 patent.

The Zhou reference discloses the use of a mouse anti-human CD40 antibody McAb 5C11 to increase the *in vitro* proliferation of normal B cells and the *in vitro* proliferation and differentiation of dendritic cells. Furthermore, the Zhou reference discloses that dendritic cells activated by anti-CD40 monoclonal antibody McAb 5C11 are capable of triggering T cell activation, but the Zhou reference does not teach a mechanism for such T cell activation.

Whereas the Zhou reference discloses a mouse anti-human CD40 antibody McAb 5C11-induced activation of dendritic cells, they fail to teach or suggest a method for enhancing a human antigen presenting cell (APC)-mediated human cytotoxic T lymphocyte (CTL) by an anti-CD40 antibody capable of blocking CD40L binding to CD40 by only 16-88%, as required by claims 1, 2, and 4-6 of the '759 patent.

Additionally, the Zhou reference fails to teach or suggest any of the claimed antibodies with American Type Culture Collection (ATCC) designation of PTA-2993, PTA-2995, PTA-2996, PTA-2997, PTA-2998, or PTA-2999, as required by all of the claims of the '759 patent.

Also, nowhere does the Zhou reference mention the use of a humanized antibody, single chain antibody, or a CD40 binding fragment of an anti-CD40 antibody, as recited in the '759 claims.

Furthermore, though the Zhou reference discloses the mouse anti-human CD40 antibody McAb 5C11-stimulated activation of dendritic cells, the reference fails to teach a method for

enhancing an antigen-specific cytotoxic T cell lymphocyte (CTL) response, wherein said CTL is activated with a human antigen presenting cell stimulated via the CD40 receptor with an anti-CD40 antibody capable of blocking CD40L binding to CD40 by only 16-25%, as required by claim 3 of the '759 patent.

Furthermore, the Zhou reference does not teach or suggest the stimulation of a monocyte-derived dendritic cell with an agonist anti-CD40 antibody, a chimeric antibody, humanized antibody, single chain antibody, or CD40 binding fragment thereof, which is capable of blocking binding of CD40L on a human T lymphocyte to CD40 on a human APC by 16-88%, as required by claim 5.


In addition, the Zhou reference does not teach or suggest further administration of IFN- γ in the method disclosed therein.

Furthermore, the Zhou reference does not teach or suggest injection of an agonist anti-CD40 antibody, chimeric antibody, humanized antibody, single chain antibody or CD40 binding fragment thereof, as required by claim 6.

Timely and favorable consideration of this request is respectfully requested. It is believed that no fee is owing in regard to the Request; however, if any fee is owing, it is respectfully requested that Customer Account No. 04-0100 be charged in the amount of the fees owed. If the Examiner has any questions or further instructions in regard to this Request, he/she is request to contact the owner's attorney at the telephone number given below.

Dated: October 22, 2007

Respectfully submitted,

By 

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Docket No.: 20142/1201318-US1

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